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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,370	10/15/2003	Jong-Young Yun	8750-048	9277

20575 7590 03/20/2006

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EXAMINER

GARLAND, STEVEN R

ART UNIT PAPER NUMBER

2125

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.:

10/687,370

Applicant(s)

YUN, JONG-YOUNG

Examiner

Steven R. Garland

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/15/03, 1/30/04, and 2/4/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5 and 6 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-6 are pending.
2. The information (29 documents) filed 2/4/04 (see remarks below) fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information (29 documents) has been placed in the application file, but the information referred to therein has not been considered.

Remarks: 29 documents including one published PCT application WO99/40061 entitled "Novel Dihydroxyhexanoic Acid Derivatives" with the other 28 documents being non Patent literature have been placed in the application file. Upon a very cursory review these documents appear to not belong in the application given their subject matter but have been placed in the application file. No formal information disclosure statement (signed by the either the applicant or attorney) has been submitted to aid in determining if these documents belong in the instant application file. Applicant is requested to clarify whether these 29 documents actually belong in the application file or have placed in the application file by error. As noted above these documents have not been considered by the examiner.

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3. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. A new oath or declaration is required because the filing date of the foreign priority document is incorrectly given as 12 November 2002 instead of the correct date of 14 November 2002. The wording of an oath or declaration cannot be amended. If the wording is not correct or if all of the required affirmations have not been made or if it has not been properly subscribed to, a new oath or declaration is required. The new oath or declaration must properly identify the application of which it is to form a part, preferably by application number and filing date in the body of the oath or declaration. See MPEP §§ 602.01 and 602.02.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Acknowledged Prior Art of figure 1 in view of Deutsch et al. 5,119,683 and Fulton et al. 5,433,344.

The acknowledged prior art of fig. 1 and its description on page 2, line 3 to page 3, line 2 teaches a main controller 18; driver 21; solenoid valves 5,7,9,11; for supplying gas for semiconductor manufacturing.

The acknowledged prior art however fails to teach the use of an interlocker and supplying a signal from the interlocker to the main controller.

Deutsch et al. teaches a system to insure that a solenoid valve used to control gas flow is operating correctly. Deutsch teaches comparing the fly back pulses to a reference voltage to detect abnormal driver and solenoid conditions and supplying a signal to a controller. Deutsch teaches that based on the results that control or diagnostics can be performed. See the abstract; figures; col. 1, lines 7-47; col. 2, lines 12-26 and 45-67; col. 3, lines 1-20; col. 4, lines 1-19 and 40-60; and the claims.

It would have been obvious to one of ordinary skill in the art to modify the acknowledged prior art in view of Deutsch and use a detector arrangement to insure that the valves are operating correctly and also allow determining whether the driver or solenoid is defective.

The acknowledged prior art and Deutsch however do not specifically provide an interlock signal.

Fulton et al. teaches generating an interlock signal in case of a system error and transmitting it to the processing system so that the system can be shut down or the operator warned. Abstract; col. 2, lines 35-48 and figure 3.

It would have been obvious to one of ordinary skill in the art to modify the acknowledged prior art and Deutsch in view of Fulton to use the error signal as an interlock signal and either shut the system down and/or warn the operator.

7. Claims 1-3,5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Acknowledged Prior Art of figure 1 in view of Tetsuya et al. 2000-161532 and Fulton et al. 5,433,344.

The acknowledged prior art of fig. 1 and its description on page 2, line 3 to page 3, line 2 teaches a main controller 18; driver 21; solenoid valves 5,7,9,11; for supplying gas for semiconductor manufacturing.

The acknowledged prior art however fails to teach the use of an interlocker and supplying a signal from the interlocker to the main controller.

Tetsuya et al. (Japanese document 2000-161532 with machine translation) is directed to abnormality detection of a solenoid valve. In which the driving voltage is compared to a reference voltage and on the basis of the comparison it is determined whether the valve is operating normally or not. See the abstract; figure 1 and its description; also paragraph 0005 and claim 1 of the translation.

It would have been obvious to one of ordinary skill in the art to modify the acknowledged prior art in view of Tetsuya and use a detector arrangement to insure that the valves are operating correctly or determine if they are malfunctioning.

The acknowledged prior art and Tetsuya however do not specifically provide an interlock signal.

Fulton et al. teaches generating an interlock signal in case of a system error and transmitting it to the processing system so that the system can be shut down or the operator warned. Abstract; col. 2, lines 35-48; col. 4, lines 39-45; and figure 3.

It would have been obvious to one of ordinary skill in the art to modify the acknowledged prior art and Tetsuya in view of Fulton to use the error signal as an interlock signal and either shut the system down and/or warn the operator and prevent dangerous or hazardous conditions.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5, line 1, recites "supplying gas" however no actual gas supply is performed. It is suggested that in line 5, that the phrase --to control the supply of gas -- be inserted after "signal" to overcome this rejection.

Claim 6 falls with the parent claim.

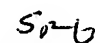
10. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

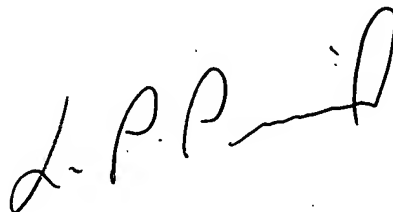
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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven R. Garland whose telephone number is 571-272-3741. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Steven R Garland
Examiner
Art Unit 2125



LEO PICARD
SUPERVISORY PATENT EXAMINER
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